BRUHAT BANGALORE MAHANAGARA PALIKE

Byatarayanapura Division

NAME OF WORK: - IMPROVEMENTS TO ROADS AND DRAINS AND OTHER ALLIED WORKS IN YASHODA NAGARA, SAHAKARNAGARA AND SURROUNDING AREAS IN NEW WARD NO.10 BYATARAYANAPURA KODIGEHALLI SUB-DIVISION

DETAILED COST ESTIMATE

Estimate Cost : Rs.125.00 Lakhs

SL NO	PARTICULARS	UNIT	NO	MEASUREMENT			QUANTITY	RATE	AMOUNT
				LENGTH	BREADTH	DEPTH			
1	Earth work excavation by manual means for drains, canals, waste weir, draft, approach channels, key trenches, foundation of Buildings & bridges and such simillar works in all kinds of soils, as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. In all kinds of soils Depth upto 1.5 m[PWD SR 2023-24/ Volume-1/ Chapter-1/P.NO-5/ Item no:-1.4.1]								
	YASHODHA NAGARA	**New RCC Drain**							
	Cross Road	Cum	2.00	95.00	0.90	1.00	171.00		
	Cross Road	Cum	2.00	95.00	0.90	1.00	171.00		
	Cross Road	Cum	2.00	45.00	0.90	1.00	81.00		
	Cross Road	Cum	2.00	95.00	0.90	1.00	171.00		
	Thindlu								
	Cross Road	Cum	2.00	100.00	0.90	1.00	180.00		
		New Culvert							
	Culverts	Cum	6.00	7.00	1.50	1.20	75.60		
					Total		**849.60**	**266.20**	**226163.52**
	Basic Rate	**242.00**							
	Add AW 10%	24.20							
	Total	**266.20**							
2	Providing and laying in position Cement Concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing, and all the other appurtenances required to complete the work as per technical specifications.Mix 1:4:8 Using 40 mm nominal size graded crushed coarse aggregates[PWD SR 2023-24/ Volume-1/ Chapter-2/P.NO-15/ Item no:-2.1.2]								
	Bed Concrete								
	Cross Road	Cum	2.00	95.00	0.90	0.10	17.10		
	Cross Road	Cum	2.00	95.00	0.90	0.10	17.10		
	Cross Road	Cum	2.00	45.00	0.90	0.10	8.10		
	Cross Road	Cum	2.00	95.00	0.90	0.10	17.10		
	Thindlu								
	Cross Road	Cum	2.00	100.00	0.90	0.10	18.00		
	Culverts	Cum	6.00	7.00	1.50	0.15	9.45		
					Total		**86.85**	**6230.40**	**541110.24**
	Basic Rate	**5664.00**							
	Add AW 10%	566.40							
	Total	**6230.40**							
3	Providing and laying in position Cement Concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necessary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications.**M20 Design Mix Using 20 mm nominal size graded crushed coarse aggregates**[PWD SR 2023-24/ Volume-1/ Chapter-2/P.NO-16/ Item no:-2.4.2]								
	For Raft								
	Cross Road	Cum	2.00	95.00	0.90	0.15	25.65		
	Cross Road	Cum	2.00	95.00	0.90	0.15	25.65		

	Cross Road	Cum	2.00	45.00	0.90	0.15	12.15		
	Cross Road	Cum	2.00	95.00	0.90	0.15	25.65		
	Thindlu								
	Cross Road	Cum	2.00	100.00	0.90	0.15	27.00		
	For Side Wall								
	Cross Road	Cum	4.00	95.00	0.15	0.60	34.20		
	Cross Road	Cum	4.00	95.00	0.15	0.60	34.20		
	Cross Road	Cum	4.00	45.00	0.15	0.60	16.20		
	Cross Road	Cum	4.00	95.00	0.15	0.60	34.20		
	Thindlu								
	Cross Road	Cum	4.00	100.00	0.15	0.60	36.00		
					Sub-Total A		**270.90**		
	Culverts								
	For Raft	Cum	6.00	7.00	1.50	0.15	9.45		
	For Side Wall	Cum	12.00	7.00	0.23	0.90	17.39		
					Sub-Total B		**26.84**		
					Total A+B		**297.74**	**7650.83**	**2277942.82**
	Basic Rate	**6323.00**							
	Add AW 10%	632.30							
	Sub-Total	**6955.30**							
	Centering & Shuttering 10%	695.53							
	Total	**7650.83**							
4	Steel Fabrication,Supplying, fitting and placing TMT FE 550 / 550D Steel Reinforcement including cost of all materials, machinery, labour, cleaning, straightening, cutting, bending, hooking, laping/welding joints, tying with binding wire / soft annealed steel wire and other ancilary operations complete as per drawing and technical specification .c For Substructure of Bridges[PWD SR 2023-24/ Volume-1/ Chapter-2/P.NO-91/ Item no:-2.11 h]								
	Quantity From Item 3[60kg/cum]		1.00	270.90		60.00	16254.00		
	Quantity From Item 3[90kg/cum]		1.00	26.84		90.00	2415.42		
						Kg	18669.42		
						Tonne	18.67		
					Total		**18.67**	**86912.10**	**1622598.50**
	Basic Rate	**79011.00**							
	Add AW 10%	7901.10							
	Sub-Total	86912.10							
5	Providing and laying 100mm thick pre-cast cover slabs over Road side drains / utility ducts / Rain water harvesting pit of width not exceeding 1000 mm using M20 concrete reinforced with TMT bars Fe 550 @ 6kg/m2, slabs jointed in CM 1:3 proportion and nicely finished Including providing holes in the Cover slabs wherever necessary for easy drain age of surface waterincluding of labour, materials, scaffolding, usage of machinery, curing, lead and lift charges etc, Complete.[PWD SR 2023-24/ Volume-2/ Chapter-2/P.NO-177/ Item no:-17.14]								
	New CC Slabs - 100mm								
	Cross Road	Sqm	2.00	95.00	0.90		171.00		
	Cross Road	Sqm	2.00	95.00	0.90		171.00		
	Cross Road	Sqm	2.00	45.00	0.90		81.00		
	Cross Road	Sqm	2.00	95.00	0.90		171.00		
	Thindlu	Sqm	2.00	115.00	0.90		207.00		
					Total		**801.00**	**1518.66**	**1216446.66**
	Basic Rate	**1170.00**							
	Add AW 10%	117.00							
	Sub-Total	1287.00							
	GST	231.66							
	Total	**1518.66**							

6	Providing and fixing 230mm thick pre cast reinforced concrete slab as per design and drawing material cost,transportation, hire charges of machinery complete with all lead and lift conveyance charges labour charges inclusive of cost of all materials(As per data rate)								
	For New RCC Culvert Bed Concrete	Sqm	6.00	7.00	1.20		50.40		
					Total		50.40	5037.00	253864.80
	Data Rate	**5037.00**							
	Sub-Total	5037.00							
7	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work.In all kinds of soils upto 300 mm depth[PWD SR 2023-24/ Volume-1/ Chapter-1/P.NO-8/ Item no:-1.12]								
		Edge Cutting/Potholes/Road Damage							
	Sahakarnagara cross road	Cum	1.00	130.00	7.00	0.20	182.00		
	v] Jai Hanuman Layout								
	1st Cross T	Cum	1.00	150.00	6.00	0.20	180.00		
	3rd Cross	Cum	1.00	84.00	6.00	0.20	100.80		
	Cross Road	Cum	1.00	130.00	6.00	0.20	156.00		
	Cross Road	Cum	1.00	128.00	6.00	0.20	153.60		
							772.40		
	Consider 30% Road Damage				Total		231.72	104.50	24214.74
	Basic Rate	**95.00**							
	Add AW 10%	9.50							
	Sub-Total	104.50							
8	**Wet Mix Macadam** (Plant mix method) Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density[PWD SR 2023-24/ Volume-3/ Chapter-4/P.NO-26/ Item no:-4.17]								
		Edge Cutting/Potholes/Road Damage							
	Sahakarnagara cross road	Cum.	1.00	130.00	7.00	0.15	136.50		
	v] Jai Hanuman Layout								
	1st Cross T	Cum	1.00	150.00	6.00	0.15	135.00		
	3rd Cross	Cum	1.00	84.00	6.00	0.15	75.60		
	Cross Road	Cum	1.00	130.00	6.00	0.15	117.00		
	Cross Road	Cum	1.00	128.00	6.00	0.15	115.20		
							579.30		
	Consider 30% Road Damage				Total		173.79	2814.90	489201.47
	Basic Rate	**2559.00**							
	Add AW 10%	255.90							
	Sub-Total	2814.90							
9	Providing and applying **primer coat** with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means. Prime Coat over WMM/WBM[PWD SR 2023-24/ Volume-3/ Chapter-5/P.NO-29/ Item no:-5.1 A [i]]								
		Edge Cutting/Potholes/Road Damage							
	Sahakarnagara cross road	Sqm	1.00	135.00	7.00		945.00		
	v] Jai Hanuman Layout	Sqm							
	1st Cross T	Sqm	1.00	150.00	6.00		900.00		
	3rd Cross	Sqm	1.00	84.00	6.00		504.00		
	Cross Road	Sqm	1.00	130.00	6.00		780.00		
	Cross Road	Sqm	1.00	128.00	6.00		768.00		
		Sqm			Sub-Total		3897.00		
	Consider 30% Road Damage	Sqm			Sub-Total A		1169.10		

		Profile Correction							
	Sahakarnagara cross road	Sqm	1.00	135.00	7.00		945.00		
	v] Jai Hanuman Layout	Sqm							
	1st Cross T	Sqm	1.00	150.00	6.00		900.00		
	3rd Cross	Sqm	1.00	84.00	6.00		504.00		
	Cross Road	Sqm	1.00	130.00	6.00		780.00		
	Cross Road	Sqm	1.00	128.00	6.00		768.00		
					Sub-Total		3897.00		
	Consider 15% for Profile Correction				**Sub-Total B**		**584.55**		
					Total A+B		**1753.65**	**45.10**	**79089.62**
	Basic Rate	**41.00**							
	Add AW 10%	4.10							
	Sub-Total	45.10							
10	Tack coat on Bituminous surface,Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom[PWD SR 2023-24/ Volume-3/ Chapter-5/P.NO-31/ Item no:-5.3 I]								
	Sahakarnagara cross road	Sqm	1.00	135.00	7.00		945.00		
	v] Jai Hanuman Layout	Sqm							
	1st Cross T	Sqm	1.00	150.00	6.00		900.00		
	3rd Cross	Sqm	1.00	84.00	6.00		504.00		
	Cross Road	Sqm	1.00	130.00	6.00		780.00		
	Cross Road	Sqm	1.00	128.00	6.00		768.00		
					Total		**3897.00**	**13.20**	**51440.40**
	Basic Rate	**12.00**							
	Add AW 10%	1.20							
	Sub-Total	13.20							
11	Dense Graded Bituminous Macadam Grading - II for traffic <20 MSA,Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects[PWD SR 2023-24/ Volume-3/ Chapter-5/P.NO-35/ Item no:-5.12 C MoRTH Sec 505]								
		Edge Cutting/Potholes/Road Damage							
	Sahakarnagara cross road	Cum	1.00	135.00	7.00	0.05	47.25		
	v] Jai Hanuman Layout	Cum				0.05	0.00		
	1st Cross T	Cum	1.00	150.00	6.00	0.05	45.00		
	3rd Cross	Cum	1.00	84.00	6.00	0.05	25.20		
	Cross Road	Cum	1.00	130.00	6.00	0.05	39.00		
	Cross Road	Cum	1.00	128.00	6.00	0.05	38.40		
		Cum			**Sub-Total**		194.85		
	Consider 30% Road Damage	Cum			**Sub-Total A**		**58.46**		
		Profile Correction							
	Sahakarnagara cross road	Cum	1.00	135.00	7.00	0.05	47.25		
	v] Jai Hanuman Layout	Cum				0.05	0.00		
	1st Cross T	Cum	1.00	150.00	6.00	0.05	45.00		
	3rd Cross	Cum	1.00	84.00	6.00	0.05	25.20		
	Cross Road	Cum	1.00	130.00	6.00	0.05	39.00		
	Cross Road	Cum	1.00	128.00	6.00	0.05	38.40		
		Cum			**Sub-Total**		194.85		
	Consider 15% for Profile Correction	Cum			**Sub-Total B**		**29.23**		
					Total A+B		**87.68**	**10393.90**	**911363.14**
	Basic Rate	**9449.00**							
	Add AW 10%	944.90							
	Sub-Total	10393.90							
12	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site,laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects[PWD SR 2023-24/ Volume-3/ Chapter-5/P.NO-36/ Item no:-5.16 C MoRTH Sec 507]								
	Sahakarnagara cross road	Cum	1.00	135.00	7.00	0.04	37.80		
	v] Jai Hanuman Layout								
	1st Cross T	Cum	1.00	150.00	6.00	0.04	36.00		
	3rd Cross	Cum	1.00	84.00	6.00	0.04	20.16		

	Cross Road	Cum	1.00	130.00	6.00	0.04	31.20		
	Cross Road	Cum	1.00	128.00	6.00	0.04	30.72		
					Sub-Total		155.88	12049.40	1878260.47
	Basic Rate	**10954.00**							
	Add AW 10%	1095.40							
	Sub-Total	12049.40							
13	Road Marking with Hot Applied Thermoplastic Compound with Re flectorising Glass Beads on Bituminous Surface Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes.[PWD SR 2023-24/ Volume-3/ Chapter-8/P.NO-67/ Item no:-8.15 MoRTH Sec803]								
	Sahakarnagara cross road	Sqm	2.00	135.00	0.10		27.00		
	v] Jal Hanuman Layout	Sqm	2.00		0.10		0.00		
	1st Cross T	Sqm	2.00	150.00	0.10		30.00		
	3rd Cross	Sqm	2.00	84.00	0.10		16.80		
	Cross Road	Sqm	2.00	130.00	0.10		26.00		
	Cross Road	Sqm	2.00	128.00	0.10		25.60		
					Sub-Total		125.40	583.00	73108.20
	Basic Rate	**530.00**							
	Add AW 10%	53.00							
	Sub-Total	583.00							
14	Unload ing, Loading & Carriage of MaterialsLoading and Unloading of Stone Boulder/Stone aggregates/Sand/Kankar/Moorum. (Tipper 5.5 m3)[PWD SR 2023-24/ Volume-3/ Chapter-1/P.NO-5/ Item no:-1.1 a]								
	Quantity From Item 1	Cum	1.00	849.60			849.60		
	Quantity From Item 7	Cum	1.00	231.72			231.72		
					Total		1081.32	148.50	160576.02
	Basic Rate	**135.00**							
	Add AW 10%	13.50							
	Sub-Total	148.50							
15	Cost of Haulage Excluding Loading and Unloading,Taking output 10 t load and lead 10 km = 100 t.km[PWD SR 2023-24/ Volume-3/ Chapter-1/P.NO-3/ Item no:-1.4 iii A]								
	Quantity from Item No-1	t.km	1.00	1081.32	1.28		1384.09		
						Total	1384.09	198.00	274049.74
	Basic Rate	**12.00**							
	15KM LEAD [12*15=180]	180.00							
	Add AW 10%	18.00							
	Sub-Total	198.00							
							Total		10079430.34
							Tender Premium 5%		503971.52
							GST 18%		1814297.46
							PMC 1%		100794.30
							Miscelleneous		1506.38
							Grand Total		**12500000.00**

Certificate

1. The workspot was inspected and works is found to be necessary.
2. The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3. The rates adopted based on the PWD SR,Bangalore circle for year 2022-23 and Data Rates.

Assistant Engineer
Ward 10, Kodigehalli Sub-Division
BBMP

Asst. Executive Engineer
Kodigehalli Sub-Division
BBMP

Executive Engineer
Byatarayanapura Division
BBMP

ADMINISTRATIVE SANCTION

Accorded for Rs. 125.00 Lakhs

Head of A/c 05-330502 (P-2337 & P3863)

Div. Ref. No. 68 Date. 12/03/25

AE/DM

EE(BTP) BBMP

Technical Sanction
Accorded For Rs 125 Lakhs only
Head of A/C P 2337
CER NO : 149 Dt: 07/02/25